

**REMARKS**

Claims 13, 14 and 16 are pending in this application, of which claims 13 and 16 have been amended. No new claims have been added.

The Examiner has objected to claim 16 for an informality which has been corrected in the aforementioned amendments.

The Examiner has maintained from the previous Office Action of March 23, 2004, the 35 USC §103(a) rejection of claims 13-14 and 16 as unpatentable over **Ishida et al.** in view of **Yamakage**.

Applicants respectfully traverse this rejection.

As noted in Applicants' response of July 1, 2004:

In **Yamakage**, the heat is dissipated directly from the metal block 2 having the greater volume and the greater mass, to the surrounding space, and some elements located around the metal block 2 may be affected by the heat, as well as the amount of the heat conveyed from the metal block 2 to the fins 6 in the duct becoming smaller.

In the present invention, the heat receiving plate (which is considerably thin relative to the metal block 2) is arranged outside the duct and near the duct, and some elements located around the heat receiving plate may not be affected by the heat, as well as the amount of the heat conveyed from the heat receiving plate to the fins (which are large relative to the fins of **Yamakage**) in the duct becoming large. Accordingly, the heat generated by the heat generating element is effectively conveyed to a remote plate via the heat receiving plate, the heat pipes, the fins and the duct.

Therefore, the heat pipe cooler of the invention can effectively cool the semiconductor element having a very densely designed circuit,

without affecting an element located around the semiconductor element. The duct can be designed with more freedom.

Claim 13 has been amended to recite that the heat receiving plate is arranged outside the ventilation duct, in contrast to Ishida et al., where the base plate is also a wall of the casing (duct).

In response to this argument, the Examiner has stated, among other things:

In response to applicant's argument that Ishida et al. fails to disclose that heat receiving plate as being arranged outside the ventilation duct as now received in the instant invention, applicant is respectfully reminded that claims in a pending application should be given their broadest reasonable interpretation. *In re Pearson*, 181 USPQ 641 (CCPA 1974). The claims of the present application fail to recite the entire heat receiving plate as being disposed completely outside of the ventilation duct; thus, contrary to applicant's arguments, the limitations relating to the heat receiving plate being arranged outside the ventilation duct (at least in part) fail to obviate the disclosure of Ishida et al.

Accordingly, claim 13 has been amended to recite that the heat receiving plate is arranged entirely outside the ventilation duct.

Thus, the 35 USC §103(a) rejection should be withdrawn.

In view of the aforementioned amendments and accompanying remarks, claims 13, 14 and 16, as amended, are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

U.S. Patent Application Serial No. **09/044,030**  
Response to Office Action dated January 3, 2005

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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Enclosures: Petition for Extension of Time

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